ATTACHMENT D

Executive Summary from AZ QWEST Performance Measurements Audit: Final Report



QWEST PERFORMANCE MEASUREMENTS AUDIT:

FINAL REPORT

December 21, 2001

Version 3.0

Prepared For:

Arizona Corporation Commission

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Performance Measurement Audit - Final Report

Executive Summary

Performance Measurement Audit Description

Cap Gemini Telecom Media & Networks U.S., Inc. (hereinafter "CGE&Y") examined Qwest's compliance with certain requirements of the Arizona Service Performance Indicator Definitions (PID). The PID underwent numerous revisions during the course of this audit to reflect new measures, delete certain measures and make changes to existing measures due to issues identified during the audit. The audit began in August of 2000 and was conducted in phases. See Table 3 - Phased Test Approach for a list of which measures were audited during each particular phase. PID, version 5.1 (PID 5.1) dated August 28, 2000 was in effect at the beginning of the audit. Version 6.3, dated May 2, 2001, was accepted by the parties and in effect at the conclusion of the audit. The audit report specifies which version of the PID in effect at the time each measure was undergoing the audit process. For purposes of the historical data analysis, CGE&Y analyzed at least three months of data on all measures. In some instances six months of data were analyzed. The results of the analysis are contained in the Performance Measurements Audit - Final Report (PMA-FR) dated December 21, 2001. The examination was conducted in accordance with the Arizona Master Test Plan, Version 4.0 (MTP) and the Arizona Test Standards Document, Version 2.7 (TSD). In addition, a more detailed plan was developed outlining the requirements for the audit of Qwest's performance measurement reporting. This audit also conformed to the Arizona Performance Measurements Process Audit Plan (PMPAP), dated May 23, 2000.

The Arizona Test Advisory Group (TAG) developed both the MTP and TSD through extensive negotiations. The TAG consisted of representatives from the Arizona Corporation Commission (ACC), Doherty & Company, Inc. (DCI, consultant to the ACC), CGE&Y (the Operations Support Systems (OSS) test administrator), Hewlett Packard (HP, the Pseudo-CLEC), Qwest, Competitive Local Exchange Carriers (CLECs) operating in the state of Arizona, and other participants whose desire to participate had been established. The PMPAP was approved by the TAG prior to the start of the Performance Measurements Audit. The TAG was also responsible for developing, revising and approving the Arizona PID.

The Performance Measurements Audit (PMA) was a review of the documentation, data collection processes, calculations and other processes Qwest applied in providing performance measurement information to the CLECs in the state of Arizona. The audit included validation of all aspects of Qwest's performance measurement processes, procedures, business rules exclusions, calculation methods and a qualitative assessment of their performance measurement operations. This audit complied with General Accounting Office (GAO) procedures and guidelines and was the most comprehensive audit conducted on an ILEC's reporting of performance measurements to date.

The resultant final report of this auditing engagement is an opinion on the part of the independent practitioner, CGE&Y, on whether Qwest's reporting of performance measurements was accurately presented in all material respects. This PMA-FR reflects CGE&Y's evaluation, and fulfills CGE&Y's commitment for a Final Performance Measurements Evaluation Report.

The standards related to this engagement and activities included in the audit were as follows:

General Standards

- 1. A practitioner or practitioners having adequate technical training and proficiency shall perform the audit.
- 2. A practitioner or practitioners having adequate knowledge in the appropriate subject matter shall perform the audit.
- 3. An independence in mental attitude shall be maintained by the practitioner in all matters relating to the audit.
- 4. Due professional care shall be exercised in the performance of the audit.

Standards of Fieldwork

- 1. The work shall be adequately planned and assistants, if any, shall be properly supervised.
- 2. Sufficient evidence shall be obtained to provide a reasonable basis for the conclusion expressed in the report.

Standards of Reporting

- 1. The report shall identify the measure being reported by the mechanized or manual system that generates the raw data for the measure and states the agreed upon criteria for reporting the measure.
- 2. The report shall state the practitioner's conclusion about whether the measurement result is presented in conformity with the established or stated criteria.
- 3. The report shall state all of the practitioner's significant reservations about the audited measure and an Incident Work Order (IWO) shall be issued for each such reservation.

Summary of Audit Activities

The following activities were conducted as an integral part of the PMA process:

- 1. Identified the systems that impacted performance measures and the data collected by those systems.
- 2. Obtained an understanding of the data flows and processes related to each performance measurement.
- 3. Gained an understanding of the information used by Qwest in the performance measurement calculation: business requirements, methods and procedures, definitions, extraction criteria, calculations and exclusions.
- 4. Reviewed Qwest's documented performance measure business rules, methods and procedures in order to determine whether sufficient controls were documented to ensure the data collected and calculated were accurate and complete.
- 5. Observed and documented Qwest's general applications process controls and performed walk-through observations of performance measure transactions.
- 6. Observed, evaluated and documented controls related to security, change management, reliability, and integrity of information across the Operations Support Systems (OSS) utilized to collect performance measures.
- 7. Observed, evaluated and documented the controls related to the completeness and accuracy of inputs and updates of performance measure data including supervisory practices for controlling accuracy and completeness.
- 8. Conducted an independent third party evaluation of historical raw data prior to the application of exclusions and an independent calculation of performance measurement results using Qwest-provided raw data.

Summary of Data Analysis Approach

- 1. Wrote and executed independent programs to determine whether each individual record was subject to general exclusions applying equally to all measures derived from that data source.
- 2. Determined each record's eligibility for each specific measure, its contribution to each measure, and its disaggregation level.
- 3. Compared CGE&Y's determinations to Qwest's corresponding adhoc data sets and reported material discrepancies revealed by using the IWO process.
- 4. Calculated the results for each disaggregation level based on Qwest's adhoc data sets, including the Z-score and parity score as defined in Qwest's Regulatory Reporting System (RRS) technical documentation.

This document reports CGE&Y's assessment of the accuracy of Qwest's performance measurement gathering, calculating and reporting methodology, and does not draw any conclusions as to whether Qwest's performance meets the requirements of the

Telecommunications Act of 1996 (the Act) or other applicable laws or regulations. The PMA-FR contains recommendations related to certain matters noted during the audit which do not individually constitute instances of material non-compliance. CGE&Y believe that the recommendations will be useful in improving the calculation of and reporting of performance measures under the Arizona PID either through the revision of existing measures or the implementation of additional measurements.

Audit Background

In accordance with the Telecommunications Act of 1996 (the Act), Qwest is required to provide non-discriminatory access to certain checklist items enumerated within the Act to CLECs operating in Arizona. The Federal Communications Commission (FCC) determined this to require non-discriminatory access to the OSS necessary to obtain these checklist items. Qwest, with the supervision of the ACC and DCI, worked with CLECs in Arizona to establish a set of performance measures that were intended to assess Qwest's performance in meeting the non-discriminatory access requirements of the Act. These measures were contained in the Arizona PID. PID 5.1, which was in effect at the start of the audit process, included forty-six performance measures (two of which were under revision) with approximately fourteen hundred sub-measures after certain layers of disaggregation were applied. The PMA assessed the accuracy, quality, consistency and reliability of Qwest's data and Qwest's general compliance in gathering data, calculating results and reporting on these agreed to measures for every disaggregation level.

Performance Measurements Systems Overview

Qwest developed a combination of automated and manual systems to gather, summarize and report performance measures. Performance measure source transactions were recorded in the OSS. These source transactions were selected from the OSS systems based on business rules developed by Qwest and validated by CGE&Y. Once selected, these source transactions were transmitted to the Performance Analysis System (PANS), the database warehouse that stored performance information from a variety of systems in SAS data sets. PANS was certified at Capability Maturity Model (CMM) Level 2 in December of 1999. This meant that PANS had a documented set of processes that described how the software was developed and that these processes met certain industry criteria for completeness. The primary purpose of PANS was to provide access to Qwest data that supported external compliance reporting to regulatory bodies and to CLECs, and for use internally by Qwest. PANS is a UNIX based system.

Once in PANS, the transactions were subjected to additional selection criteria, then summarized, reviewed and, in some cases, modified by the RRS performance measurements group. The summarized data was then uploaded to an Oracle database. A

report writer performed final calculations and provided the data to CLECs and the ACC electronically through an Acrobat pdf document. During the course of this audit, Qwest implemented a web site and began posting performance measurement results to this web site beginning with the December 2000 results.

Summary of Audit Findings

CGE&Y's audit of Qwest's performance measure systems and processes confirmed that these systems and processes were substantially in compliance with the requirements of the Arizona PID for the months included within the audit for each particular measure. Generally, Qwest systems and processes provided for the reporting of performance measurement results as required by the PID. Except as noted below, the OSS performance measurement systems and processes were observed to be available and maintained so as to provide for complete, accurate and timely reporting of the results. The systems and processes were generally protected by adequate security controls, both physical and logical, and are maintained to assure their reliability and functionality.

During the audit CGE&Y made observations for potential improvements of the OSS performance measurement reporting process. These observations are included in Error! Reference source not found. of this Executive Summary. In addition, CGE&Y developed

Error! Reference source not found. that provides a cross-reference to the observations and identifies the Table 1 observation types by performance measure.

As shown in Table 1, 128 IWOs were submitted relative to potential improvements in the OSS performance measurement process. Only two demonstrated a potential Level 3¹ impact. AZIWO3006 was reduced to a Level 2² IWO prior to its closing and Qwest implemented a fix for AZIWO3007. There were seventy-five IWOs that demonstrated a potential Level 2 impact and the remaining fifty-one showed a potential Level 1³ impact.

Table 2 shows the forty-four performance measures that were audited by CGE&Y using three or more months of raw data. Table 3 — Phased Test Approach, reflects the four phases of functionality testing and the measures that apply to each phase. Of the forty-four performance measures audited, twenty-nine applied to functionality testing. All of these measures were tested using three or more months of data; all have passed the

¹ "Level 3" represents an incident that negatively affected CGE&Y's recommendation regarding whether Qwest had passed part or the entire test.

² "Level 2" represents an incident that affected the execution or completion of a test case or a test evaluation, such as the relationship management evaluation.

³ "Level 1" represents the lowest level of severity. All IWOs assigned this level were considered an observation that did not affect the successful outcome of a test step or the completion of a test script.

process evaluation and historical data analysis portion of the audit with CGE&Y's determination that the necessary raw data was captured and could be recovered.⁴

In addition to the detailed items relative to specific individual performance measures noted above, CGE&Y observed the following five areas during the audit process which could be strengthened to improve the overall process for gathering, calculating and reporting on the performance measures:

- Not all of Qwest's practiced rules, methods and procedures were adequately documented and where they were documented, there were many discrepancies. This was documented in AZIWO-03 in general, and more specifically, for Phase I and II functionality measures, in AZIWO1030. In total, fifty IWOs were issued noting documentation deficiencies. All were resolved with the April 19, 2001 release of Qwest's RRS technical documentation and TAG approval of version 6.3 of the PID. The process audit produced questions about how Qwest actually obtained the data and performed its calculations because of noted discrepancies between the process documentation and the PID. Only through on-site interviews with Qwest, walk-throughs of performance measurement transactions and verification of the raw data was CGE&Y able to ascertain whether or not Qwest was actually gathering and calculating the data in accordance with the PID and not the outdated process documentation.
- Note: In some instances CGE&Y concluded through interviews or walk-throughs that
 Qwest was or was not calculating in compliance with the PID; however, in other
 instances CGE&Y did not draw a final conclusion until after successfully analyzing
 the raw data.
- As a result of the PMA and the fifty IWOs relating to documentation discrepancies, Qwest updated its technical documentation to reflect actual practices and for clarification where needed.

Qwest applied a series of common exclusions to the DETAIL data set for the mechanized measures. Not all of these exclusions were specified in the PID, and the Arizona TAG expressed concern over the appropriateness of applying these common exclusions. This was documented in AZIWO2014, in general, and in AZIWO2017, specifically dealing with RSOR Type 9 and 10 common exclusions. These exclusions were implemented by Qwest using the reasoning that the data were invalid and therefore could not be reported accurately. In addition, inclusion of the invalid data would skew other valid data.

CGE&Y's opinion of the common exclusions was that Qwest should be obligated to investigate the orders excluded for these reasons and should share the results of such

⁴ AZIWO3007 was the only exception to this statement. Qwest made the necessary programming changes to eliminate duplicate ICNO records based on order number instead of telephone number and reran the program on January 2000 data forward.

investigation with the parties affected. If the situation causing the exclusion was due to CLEC error, it should have been brought to the attention of the CLEC to provide the opportunity to adjust procedures to reduce errors in the future. If the cause was due to Qwest's internal programming, a fix should have occurred so that a CLEC's otherwise valid performance data would not be excluded due to actions on the part of Qwest. As a result of AZIWO2014, Qwest agreed to investigate those situations where the exclusions were caused by invalid data entries and the quantity and reason for exclusions warrants. Qwest believed there were three common exclusions that fit these criteria. These were WFA-C Type 1 exclusions, RSOR Type 3 exclusions, and RSOR Type 20 exclusions.

These common exclusions should continue to be addressed by the TAG. Many of the exclusions were included in the latest version of the PID (Version 6.3). Parties reached agreement as to how these exclusions should affect performance measurement reporting, however, since these exclusions were applied to the DETAIL data set contained within PANS, the data were recoverable and all previously reported measures could be recalculated in any method agreed to by all parties.

- At the start of the audit process, there were limited controls around the process of producing the performance measure reports after the point at which the data were captured. In particular, an independent or supervisory review needed to verify that the calculations and changes applied to the data were appropriate, was not performed adequately. CGE&Y noted several errors in Qwest's published reports for the months of June, July, August and September 2000. These errors might have been detected and corrected or adequately explained by a supervisory review. This was documented in AZIWO3006. In response to this IWO, Qwest increased the role of the supervisor in the review process of producing the performance measurement results and added a level of accountability. In particular, the supervisor was required to perform monthly reviews and to actually sign off ensuring that the task was complete and the responsible party identified.
- There were circumstances that required changing the data used for reporting the performance measures. The procedures for changing data did not include appropriate change/version control. Data changes can be made at many points along the processing stream, and controls should be in place to assure these changes were appropriately tracked, completely processed, and the results reported to the parties. This was documented in AZIWO3006 and AZIWO2072. In response to these IWOs, Owest made several changes in their change/version control process. CGE&Y conducted interviews on this issue in Denver, CO, on July 12, 2001 and was walked through the new quality/change control procedures implemented by Qwest. CGE&Y was generally satisfied with the level of attention and effort Owest put forth toward improving this process. Qwest Subject Matter Experts (SMEs) communicated in detail the role of the newly formed PID Management and Change Control (PMCC) governing body, which closely monitored and managed any issues that were PID effecting. The major responsibilities of the PMCC were: (1) ensure that development and publication of §271 performance results were consistent with the PID; (2) oversee all "fixes" to PID production code; (3) review operational changes impacting the PID

- and ensure incorporation into PID change control process; (4) lead efforts to advocate necessary changes to PIDs with external parties; and, (5) oversee externally published change documentation.
- Originally, Qwest was reporting performance measurement results via an Acrobat.pdf file which was generated approximately 45 days following the end of the reporting period. CGE&Y researched performance measurement reporting in other jurisdictions. The two states which had been successful in obtaining §271 authorization by December 2000, report measures via an internet web site that was password protected. This report was generally available within 15 to 20 days following the end of the reporting period. In the opinion of CGE&Y, for an ILEC to have a successful §271 application, there must be a formal means of reporting performance measurement results on a monthly basis and in a timely manner. This was documented in AZIWO1018. In response to this IWO, as of December 2000, Qwest began providing its report via a web site; however, there was still an average 45 day delay before results were available. AZIWO1106 documented this delay and in response to this IWO and negotiations occurring during the Performance Assurance Plan (PAP) workshops, Qwest provided results prior to the end of the following month.

Executive Summary Concluding Remarks

The balance of this report presents CGE&Y's analysis, findings and recommendations for each of the forty-four performance measurements reported for Arizona at the time of the audit. Each section also describes exclusions applied and formulas for calculation. The processes and reasoning utilized by CGE&Y in assessing each measure provides the reader with sufficient information to understand the conclusions reached.

As a result of the audit process and the 128 IWOs that were issued, many improvements have been made to Qwest's performance measurement reporting process. Thirty IWOs resulted in improvements to the Arizona PID either in providing clearer documentation or actual performance measure improvements. Thirty-eight IWOs contributed to improvements to the code Qwest utilized in producing performance measurement results. Twenty IWOs resulted in revisions or updates to Qwest's process documentation to reflect actual processes used to produce the measurement results in order to comply with the requirements of the current PID. Eight IWOs provided process improvements and eight also resulted in reconciliation of Qwest's raw data. Qwest responded to seven IWOs by mechanizing measures previously provided through manual methods in an effort to eliminate human error. Four IWOs resulted in reporting process improvements, one in an improved version and change control methodology, and one in a system improvement.

ATTACHMENT E ROC 4.0 PID Change Summary

Changes in ROC 271 Working PID Version 4.0

The following chart summarizes changes made to the previous version of the PID to create version 4.0

Measurement	Description of Change
General	Accepted Version 3.0 Changes as agreed in ROC TAG meetings since the publication of 3.0. Rejected unaccepted changes.
General	Updated Availability throughout.
GA-7	 Added PID submitted to the ROC TAG and approved on the 8/2/01 meeting. Added benchmarks agreed to 10/4/01 in TAG meeting
PO-1A & PO- 1B	As approved in the 6/27/01 added to line item #7 'ADSL'. Added item #8, Made additions to Disaggregation Reporting and standards sections. Corrected punctuation in item Note 6. Added before Service Availability Information benchmarks.
PO-2	 Added Diagnostic to PO-2A benchmark as agreed in 10/04/01 TAG Added punctuation to note on flow through matrix.
PO-5	 Added Unbundled Loops with Facility Check to the 72 hr category based on concept agreed to in the 10/04/01 ROC TAG. Added Notes on Unbundled Loops with Facility Check. Note 2 reflects flow through
	capability to be added in the near future.
PO-6	Revised definition based on version approved by TAG on 8/15/01
PO-7	Revised definition based on version approved by TAG on 8/2/01
PO-15	Revised definition based on version approved by TAG on 8/2/01
PO-16	 Added PID submitted to the ROC TAG and approved on the 6/28/01 meeting. Change CICMP to CMP and Product Database to Retail Product Database. Replaced references to co-providers with CLEC based on recent developments in the CMP.
OP-3	Revised definition based on version approved 7/12/01. Modify the PID, sections: Description, Formula, Exclusions, Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity. Added to Continue the Office of the Continue the Continue to Continue the Office of the
OP-4	 Added Loop Conditioning with 90% benchmark as approved by TAG on 10/4/01 Revised definition based on versions approved by on 6/14 and 7/12/01. Modify the PID, sections: Description, Formula, Exclusions, Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity Added Loop Conditioning with 16.5 day benchmark as approved by TAG on 10/4/01
OP-6	 Revised definition based on version approved 7/12/01. Modify the PID, sections: Description, Formula, Exclusions, Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity
OP-13	 Revised definition based on version approved 7/19/01. Delete under exclusions section: CLEC not ready by 30 minutes after the Appointment Time. eliminated the exclusion for "CLEC not ready within 30 minutes," and moved the "time delay" exclusion into the description section from the exclusion section

OP-15	 Revised definition based on version approved 7/12/01. Modify the PID, sections: Description, Formula, Exclusions, Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity
OP-17	Added PID submitted to the ROC TAG and approved on the 7/26/01 meeting and benchmark agreed to 8/16 ROC TAG.
MR 11 & 12	 Added PID submitted to the ROC TAG and approved 9/20/01 meeting. Added descriptions of customer and non-Qwest trouble report reasons being excluded from the measure as requested when TAG approved definition.
MR-3, MR-4, MR- 6, and MR-8	 Added benchmarks for line sharing of parity with RES & BUS POTS as agreed to 10/4/01 ROC TAG
DB-1	 Revised definition based on version approved 6/28/01 ROC TAG, adding Bullet 3 - DB- 1A the time to update the E911 database is provided by the thrid party vendor that performs the update, and Bullet 4 - The numerator of DB-1A is calculated by multiplyin the vendor-calculated results () by the denominator ().
DA-1	 Revised definition based on version approved 6/28/01 ROC TAG adding in 'Description' field: 2 bullet points: measurements are taken by sampling and Using this metod, calls that enter the queue
OS-1	 Revised definition based on version approved 6/28/01 ROC TAG adding in 'Description' field: 2 bullet points: measurements are taken by sampling and Using this metod, calls that enter the queue
NI-1	 Revised definition based on version approved 7/12 ROC TAG, adding exclusion bullets under for NI-1A & NI-1B only: A), a), b), c), and under For NI-1A, NI-1B, NI-1C, and NI-1D: add another bullet: 'Trunk groups recently activated that have not been' Add changes to item 2 under availability, and Add items 3 and 4. NI-1 revisions strengthen the ability of the measurement to exclude causes of trunk blocking over which Qwest has no control, including situations for which CLECs have not forecasted trunks.
CP- 1 - 4	 Revised definition based on version approved 7/12 ROC TAG. Revised language in Note 2 for CP-1 and CP-2 (per AT&T's comments on AZ Working PID Version 6.3). Standard change for CP-2C from "Diagnostic" to "TBD" (per AT&T's comments on AZ Working PID Version 6.3). For both CP-1 and CP-2, removal of the exclusion "time delays associated with CLEC-not-ready conditions," and addition of a bullet in the Description section under "Establishment of RFS Dates" stating that where there is a CLEC-caused delay, the RFS Date is rescheduled (in response to ROC EXP1044 and ROC data request LIB JUN 523). Revised language in both CP-3 and CP-4 to take into account CLEC-caused delays.* Revised language in the formula for CP-4 to make the formula consistent with the PID description.* Status changes in the Availability sections of all four measurements to show "available." CP-x collocation revisions make the measurements consistent with the FCC's latest order on collocation (i.e., "Collo in 90 days"). Latest change includes a provision specifying that CLEC-caused delays are, rather than being excluded, handled by rescheduling the RFS date. Added benchmark for CP-1C as agreed in 10/4/01 ROC TAG.
Definition of	Revised definition for Ready for Service based upon version approved 7/12/01.
Terms	Revised definition for Inward Activity based upon version approved 7/1/01.

ATTACHMENT F AZ 7.0 PID Change Summary

Changes in AZ 271 Working PID Version 7.0

The following chart summarizes changes made to the previous version of the PID to create version 7.0

Measurement	Description of Change
General	Accepted Version 6.3 Changes as accepted in the 5/18/01 AZ TAG meeting.
General	Updated Availability throughout.
GA-7	 Added PID submitted to the AZ TAG and approved on the 8/29/01 meeting. Corrected Disaggregation reporting to reflect CLEC aggregate not CLEC individual will be reported as accepted in ROC TAG 11/1/01. Added benchmarks accepted in 10/4/01 TAG meeting
PO-1A & PO- 1B	 As approved in the 8/28/01 AZ TAG, added 'ADSL' to line item #7. Added item #8, Made additions to Disaggregation Reporting and standards sections. Corrected punctuation in item Note 6. Added < before Service Availability Information benchmarks. Added Connecting Facility Assignment and Meet Point Inquiry transactions as agreed in the 9-19-01 TAG Meeting.
PO-2	Added Diagnostic to PO-2A benchmark as accepted in 10/04/01 TAG
PO-3	 Added benchmarks accepted in 6/6/01 AZ TAG. Added reference to Gateway availability hours website.
PO-5B & -5C	 Added Unbundled Loops with Facility Check to the 72 hr category based on concept agreed to in the 10/04/01 ROC TAG. Added Notes on Unbundled Loops with Facility Check. Note 2 reflects flow through capability to be added in the near future.
PO-6	Revised definition based on version accepted in the 8/28/01 AZ TAG.
PO-7	Revised definition based on version accepted in the 7/20/01 AZ TAG.
PO-16	 Added PID submitted to the AZ TAG and approved on the 7/20/01 meeting. Change CICMP to CMP and Product Database to Retail Product Database. Replaced references to co-providers with CLEC based on recent developments in the CMP.
PO-19	Added PID submitted to the AZ TAG and approved with the exception of the benchmark, on the 11/12/01 meeting.
OP-3	 Revised definition based on version approved 7/20/01. Modify the PID, sections: Description, Formula, Exclusions, and Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity. Added Loop Conditioning with 90% benchmark as approved by TAG on 10/4/01 Added 95% benchmark for Line Sharing as approved by TAG on 10/30/01. Added 90% benchmark for EELs as approved by TAG on 10/4/01
OP-4	 Revised definition based on versions approved in the 7/20/01 TAG. Modify the PID, sections: Description, Formula, Exclusions, and Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity Added 3.3 days benchmark for line sharing as approved by 10/30/01 TAG Added Loop Conditioning with 16.5 day benchmark as approved by TAG on 10/4/01
OP-5	 Added benchmark of parity with Qwest Res & Bus POTS for line sharing as approved by TAG on 10/30/01.
OP-6	 Revised definition based on version approved in the 7/20/01 TAG. Modify the PID, sections: Description, Formula, Exclusions, and Notes. Revisions include changes reflecting our newly-developed capabilities to: Use the most recent customer-requested due date, rather than only the original due date, Exclude the time intervals associated with customer-caused delays, rather than the entire orders that involve customer delay, Exclude "C" order types that do not represent Inward Activity
OP-13	 Revised definition based on version approved in the 7/20/01 TAG. Delete under exclusions section: CLEC not ready by 30 minutes after the Appointment Time. eliminated the exclusion for "CLEC not ready within 30 minutes," and moved the "time delay" exclusion into the description section from the exclusion section. Added note explaining implementation of delay time exclusion.

OP-17	 Added PID submitted to the AZ TAG and approved on the 7/20/01 meeting and benchmark agreed to 8/29 AZ TAG.
MR-3, MR-4, MR- 6, and MR-8	 Added benchmarks for line sharing of parity with RES & BUS POTS as agreed to 10/4/01 AZ TAG
MR 11 & 12	 Added PID submitted to the AZ TAG and approved 7/20/01 meeting. Added descriptions of customer and non-Qwest trouble report reasons being excluded from the measure as requested when ROC TAG approved definition.
DA-1	 Revised definition based on version proposed in response to IWO 1099 and accepted in the 7/6/01 AZ TAG
OS-1	 Revised definition based on version proposed in response to IWO 1101 and accepted in the 7/6/01 AZ TAG
DB-1	 Revised definition based on version accepted in the 7/6/01 TAG meeting. Corrected Note 1 to match Note 1 in DB-2, adding deleted text.
NI-1	 Revised definition based on version approved 7/20/01 TAG, adding exclusion bullets under for NI-1A & NI-1B only: A), a), b), c), and under For NI-1A, NI-1B, NI-1C, and NI-1D: add another bullet: 'Trunk groups recently activated that have not been' Add changes to item 2 under availability, and Add items 3 and 4. NI-1 revisions strengthen the ability of the measurement to exclude causes of trunk blocking over which Qwest has no control, including situations for which CLECs have not forecasted trunks.
NP-1	 Added PID submitted to the AZ TAG and approved on the 8/28/01 meeting Added clarifying language in description, exclusions and notes sections to specify requirements for an NXX code activation to be included in NP-1.
CP-1 thru CP-4	 Revised definition based on version approved 7/20 AZ TAG. Revised language in Note 2 for CP-1 and CP-2 (per AT&T's comments on AZ Working PID Version 6.3).
	 For both CP-1 and CP-2, removal of the exclusion "time delays associated with CLEC-not-ready conditions," and addition of a bullet in the Description section under "Establishment of RFS Dates" stating that where there is a CLEC-caused delay, the RFS Date is rescheduled (in response to ROC EXP1044 and ROC data request LIB JUN 523).
	 Revised language in both CP-3 and CP-4 to take into account CLEC-caused delays.* Revised language in the formula for CP-4 to make the formula consistent with the PID description.* Status changes in the Availability sections of all four measurements to show "available."
	 CP-x collocation revisions make the measurements consistent with the FCC's latest order on collocation (i.e., "Collo in 90 days").
	 Latest change includes a provision specifying that CLEC-caused delays are, rather than being excluded, handled by rescheduling the RFS date.
	 Added benchmark for CP-1C as agreed in 10/4/01 AZ TAG. Added benchmark for CP-2C as agreed in 10/30/01 AZ TAG.
Definition of Terms	 Revised definition for Ready for Service based upon version approved 7/20/01. Revised definition for Inward Activity based upon version approved 7/20/01.